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AFRL's telescope open to civilian scientists

by Rich Garcia, Directed Energy Directorate

MAUI, HAWAII — Civilian scientists and astronomers will be given the opportunity to use the Air Force's largest and most advanced telescope system under a new joint program announced recently during a five-day technical conference being held here.

Dr. Joseph Janni, director of the Air Force Office of Scientific Research, spoke to an audience of more than 300 people about a research program being established by his office and the National Science Foundation. The program will allow civilian researchers to use a 3.67-meter telescope known as the Advanced Electro-Optical System atop nearby Haleakala, a 10,000-foot-high mountain.

According to Janni, the Air Force Office of Scientific Research is making $1 million available per year over two years for civilian researchers doing work on Maui. An additional amount being contributed by the National Science Foundation has not been finalized.

Working through grants and contracts, researchers will have access to this 3.67-meter telescope, which is recognized as the world's largest telescope and is capable of tracking satellites passing quickly overhead. The telescope can be used by multiple groups or institutions because the telescope's light can be routed through mirrors to seven independent experimental suites on a level beneath the telescope.

Although this large telescope is managed by the Air Force Research Laboratory's Directed Energy Directorate, the overall facility is known as the Maui Space Surveillance System and is under the control of the U.S. Space Command. The complex, which also houses other telescopes, is part of a space surveillance network for identifying and pinpointing objects in space.

Additionally, the Advanced Electro-Optical System is being equipped with sophisticated instrumentation: lasers and deformable optics (a mirror that can change its shape) to remove the distorting effects of the atmosphere. When fully operational next summer, this capability allows scientists to get clear images of objects in space.

According to Maj. Gen. Richard Paul, commander of Air Force Research Laboratory which includes the Directed Energy Directorate and the Office of Aerospace Research, "This is a win-win situation for both the Air Force and the research community. The research being conducted with these telescopes can lead to improvements in our space surveillance efforts while providing the researchers with access to a new top-notch telescope facility."

Among the capabilities on the complex there are sensors that can provide radiometry and photometry, plus long-wave infrared and visible imagery. There are also a 1.6-meter telescope system, 1.2-meter twin telescopes, a 0.8-meter beam director-tracker and a 0.6-meter laser beam director.

Institutions interested in using the complex can call Dr. Herb Carlson with the Air Force Office of Scientific Research in Arlington, Va, at (703) 696-7551 or Paul Kervin with the laboratory's Directed Energy Directorate in Maui, Hawaii, at (808) 874-1541. **@**